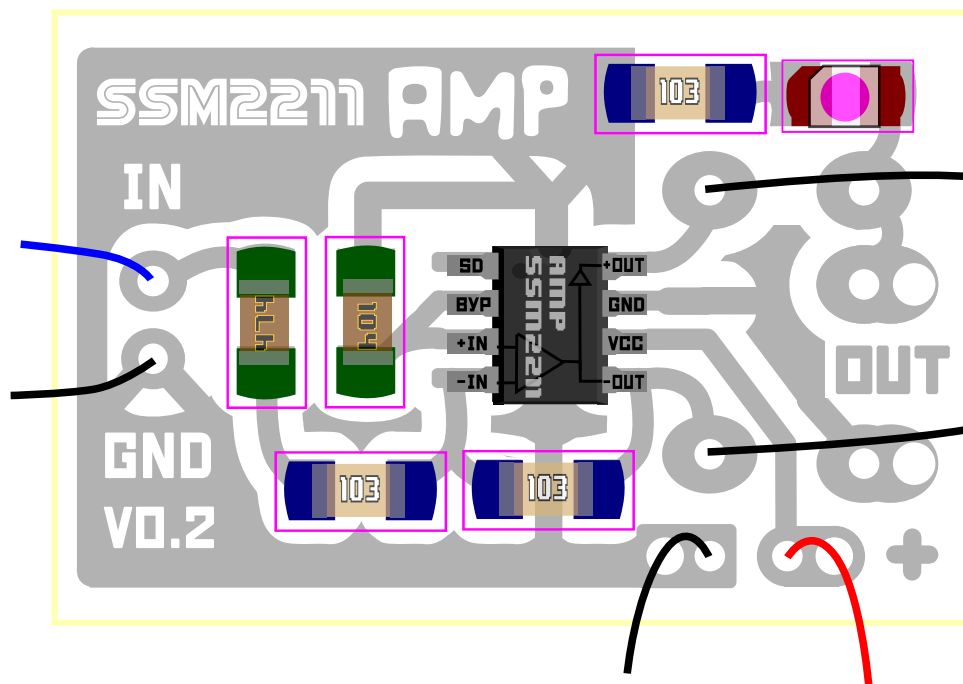


SSM2211

version 0,2

AMP



1 x SSM2211 IC

1 x 100 Ohm Resistor
1 x 470 Ohm Resistor
1 x 22 kOhm Resistor
1 x LED

1 x 100 nF Capacitor
1 x 10 uF Capacitor

(1 x 100uF Capacitor)
... for single ended

1 x Speaker

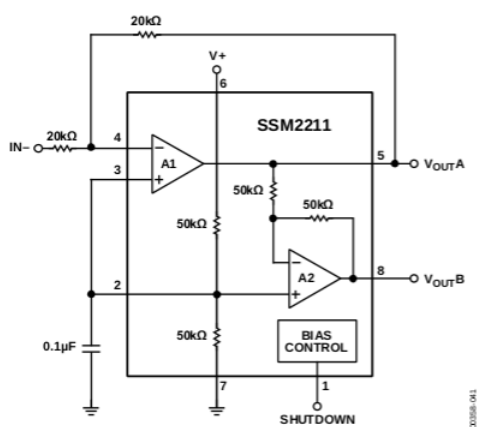
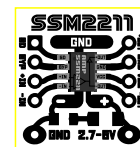
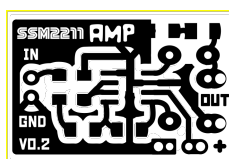
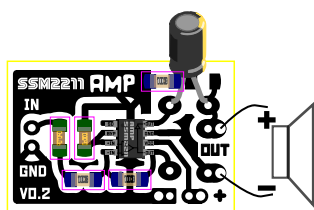


Figure 41. Simplified Schematic

SINGLE-ENDED APPLICATIONS

There are applications in which driving a speaker differentially is not practical, for example, a pair of stereo speakers where the negative terminal of both speakers is connected to ground. Figure 48 shows how this application can be accomplished.

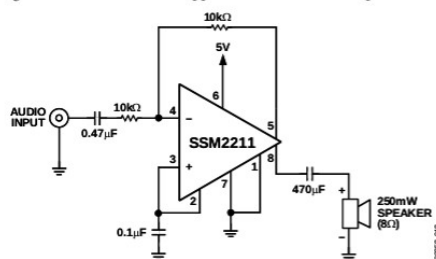


Figure 48. Single-Ended Output Application

SSM2211

APPLICATIONS INFORMATION

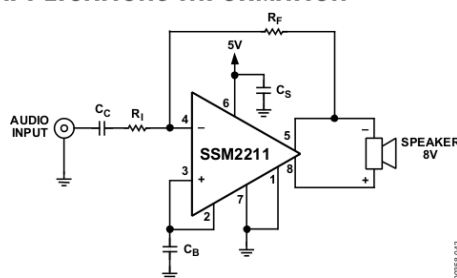


Figure 42. Typical Configuration

Figure 42 shows how the SSM2211 is connected in a typical application. The SSM2211 can be configured for gain much like a standard operational amplifier. The gain from the audio input to the speaker is

$$A_V = 2 \times \frac{R_F}{R_I} \quad (1)$$

Selecting C_B to be 2.2 μF for a practical value of capacitor minimizes start-up popping noise.

To summarize the final design,

- $V_{DD} = 5 V$
- $R_1 = 20 k\Omega$
- $R_F = 28 k\Omega$
- $C_C = 2.2 \mu F$
- $C_B = 2.2 \mu F$
- $T_{A, MAX} = 85^\circ C$



CENTER FOR ALTERNATIVE
COCONUT RESEARCH

